Laying-up and reactivating your vessel – what to take into consideration?

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

Today's circumstances may cause Shipowners deciding to lay-up their vessels. Apart from the fact that putting a vessel in lay-up will require prior agreement from your P&I and H&M insurer, from an operational perspective there are quite some factors that should be taken into consideration when doing so. This circular aims to provide guidance in this respect.

Whether a vessel is laid-up or trading, there is always an element of operational hazards and risks that should be taken into consideration. During lay-up, a vessel will be taken out of her designed and intended routine operation and consequently there will be associated operating hazards/ risks which could arise as follow:

During lay-up:

- Contact damages – due to failure of mooring arrangement such as breaking of mooring/ dragging of anchor, allision by another vessel, etc.
- Stranding/ Grounding – due to failure of mooring arrangement such as breaking of mooring/ anchor dragging.
- Fire onboard – spread of fire from/ to adjacent laid up vessel, accident caused by shipboard personnel/ watchmen such as smoking, electrical fire, etc...
- Flooding – ingress of water from piping/ hull/ seal/ fitting compromises, etc...
- Inefficient emergency responses – often vessels are laid up with skeleton crews or without crew and are being monitored by guardsmen daily or in some cases, remotely. In general, the number of crew is then inadequate to respond to onboard emergencies or handling of (anticipated) emergency situations. In the case where daily checks are performed by a guardsman or remote monitoring there is no immediate shore assisted emergency response party available to organize an appropriate response.

Further items that could occur because of improper laying up and/ or improperly reactivating the vessel after lay-up could be:

- General deterioration/ degradation of properties of sealing/ lubrication and fatigue load bearing components. These can lead to failure and/or damage of machineries, equipment, and other onboard systems when a vessel returns to its normal operational pattern.
- Corrosion of (internal) piping and fittings – failure of piping and fittings leading to oil/ liquid leakages, failure of operating system(s), damages to machineries/ equipment, etc..

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

- Inactive/ non-operated machineries/ equipment/ component(s) of the system(s) not been serviced/ overhauled as required during reactivation - leading to failure/ damage of machineries/ equipment/ system(s) after some time of becoming operational again.
- Pneumatic and electronic malfunctioning as result of atmospheric corrosion/ fouling, general degradation/ fouling due to period of inactivity - leading to failure when starting or activating the machineries/ equipment/ system(s) or failure of the machineries/ equipment/ system(s) after some time of becoming operational again.

The following guidelines are not exhaustive and are general guidelines which may need to be modified to suit a particular vessel type and/or a lay-up situation.

Hot or cold Lay up?

Short-term Laying-up

If the duration of laying up is up to twelve (12) month, a hot lay-up condition will be appropriate. The number of crew will be reduced as agreed by the Flag Administration and the vessel is to be held in compliance with the lay-up requirements of the Classification, Flag Administration, local authorities where applicable and EFM. During a hot lay-up, the vessel is out of service but can be mobilised into service on short notice.

This will ensure that the essential machineries and equipment will be kept in maintained, preserved where applicable and in operational readiness condition so that the re-commissioning/ re-activation of the vessel can be carried out quickly and the vessel's preservation will be much easier and cheaper. However, the operational cost will be higher since more crew and essential machineries, equipment and systems will be in operation as compared to a cold lay-up.

Long-term Laying-up

If duration of laying up or out of service intent is more than twelve (12) month, a cold lay-up condition will be more appropriate. The vessel is to be manned with adequate personnel as approved by the Flag Administration and/ or the local authorities where applicable to handle emergency situations such as fire, flooding, break mooring, security watch, etc..

In cold lay-up, the machinery is taken out of service and the vessel is kept "electrically dead". Depending on the duration of the lay-up, portable generator(s) can be installed for the power supplies to essential emergency machineries/ equipment/ systems. This is subject to the agreement by the Classification, Flag Administration and local authorities where applicable.

The vessel is also required to be held in compliance with the lay-up requirements of the Classification, Flag Administration, local authorities where applicable and EFM.

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

Laying-up Planning

In both hot or cold lay-up, essential considerations and preparations will be required to avoid unexpected substantial operation costs, fees and dues during lay-up. Laying up a vessel can also lead to claims resulting from unweighted or uncalculated risks during the preparation of the de-activation and lay-up process. Careful planning will also help in making the re-activation of the vessel easier.

Below you will find an overview of items to be considered:

Lay-up location, mooring arrangement, and security level

- Is the lay-up location approved by the Flag Administration, local authorities, and your insurers?
- Are the prevailing weather circumstances at the lay-up location favourable and is the location sheltered from open seas, strong winds, swell, surge, strong current, etc...?
- Are local weather information and weather warnings reliable and forecasted frequently?
- Is the location exposed to named windstorms, tropical cyclones, storms, hurricanes, etc?
- Is the water depth of the location at extreme low tide able to ensure sufficient keel clearance?
- Are there any submerged pipes/ cables, bottom projections, etc... in the proximity?
- Is the seabed characteristic appropriate to maintain anchor-holding capability?
- What is the appropriate mooring/ anchoring arrangement with regards to the vessel and the location/ facilities' characteristic and limitation?
- Are there any other vessels in the vicinity and are there any other traffic hazards?
- Are there sufficiently sized fendering arrangements provided alongside at areas of possible contact with other ships or shore structures?
- Is the deck and anchor lights, fog signals, shape, etc... readily available and operational if lay-up is near shipping lanes/ traffic?
- Is there any security concern at the location?
- Are the shore-based assistance readily available such as emergency response service, local tug assistance or fireboat assistance?

De-activation and vessel conditioning processes

The following items should be taken into consideration when preparing the vessel for de-activation:

- Is the existing hull coating in satisfactory/ acceptable condition to protect the hull against corrosion?
- Does the impressed current system (if fitted) required to be in continuous operation during the lay-up period in respect to the water condition of the lay-up location to protect the underwater hull against corrosion?

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

- Are all the sea openings (except for emergency fire pump) required to be blanked off to prevent excessive fouling of the shipboard sea water system(s)?
- Marine growths normally tend to thrive in the lay-up location. It therefore should be considered if a slow acting biocide or equivalent arrangement is necessary to prevent excessive fouling if the sea openings are not to be blanked?
- Are all sea inlet and overboard discharge valves closed and secured except those required for emergency use during lay-up period?
- Are all water tanks and chain lockers cleaned and dried as far as practicably possible and recoated where necessary?
- Will the vessel be subjected to undesirable rolling in light/ ballasted condition of the vessel with respect to the lay-up location?
- Does the vessel need to be fully ballasted to reduce the windage/ wind load on the vessel with respect to the lay-up location?
- Do the cargo tanks, slop tanks, pump room, cofferdams, cargo pipes require to be gas free and/or frequently monitored/inerted?
- Are all cargo hold/ tanks and other hatch covers, watertight doors and closing appliances secured and sealed except for requiring access or ventilation?
- Are all accommodation access doors secured and sealed with restricted access for security-controlling and to control the humidity level of the accommodation space? (Recommended humidity: 45 - 55%)
- Is the shipboard personnel accommodated as far as practicable in one area to reduce humidity to an acceptable level and is dehumidification applied where necessary in other areas of the accommodation spaces, especially in service spaces equipped with (non-operating) electrical/ electronic (control) equipment?
- Are machinery space's funnel openings, grills, ventilator openings, doors, etc... secured and sealed with restricted access to control the humidity level of the machinery space? (Recommended humidity: 30 - 50%)
- Are the bilges and tank tops of the machinery space, boiler room(s), pump room(s) and hold areas emptied, cleaned, and dried?
- All inlet and outlet valves of oil tanks are to be closed and secured except those required for emergency use during lay-up period.
- Are all noticeable liquid leakages repaired/ rectified?

SINGAPORE
EF Marine Pte. Ltd.
7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987
+65 62 59 75 02
info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.
Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands
+31 10 79 86 990
info@efmarinegroup.com

Emergency response capability of vessel's emergency equipment/ systems, manning personnel, and shore assistance during laying up period

- Are the onboard personnel/ watchmen capable and adequately trained to efficiently respond to anticipated emergency situations such as fire, flooding, anchor dragging or broken mooring?
- Is a familiarisation/ training programme required to be in place for the involved personnel/ watchmen to ensure they are properly trained for the safe operation and maintenance of the vessel during lay-up? This includes operating of essential machinery/ equipment that are critical to the lay-up operation such as electrical generator unit(s), fire-fighting equipment, mooring winches, etc...
- Are relevant emergency contacts details including shore-based and technical assistance readily available and accessible to the shipboard personnel/ watchmen?
- Is an agreement required to be in place for the services of the shore-based assistance in the proximity of the lay-up location?
- What are the emergency machineries/ equipment/ system(s) required and are they in operational readiness?
- Is there a maintenance system/ plan in place for the effective maintenance of the emergency machineries/ equipment/ system(s) during the lay-up period?

Maintenance and preservation of the vessel's structure, machineries, equipment, and systems to prevent the deterioration or premature failure during re-activation and thereafter

- Should inhibitors and/ or anodes be employed to inhibit corrosion in the cargo and/ or ballast tanks when they are ballasted?
- Do cargo residues remaining in cargo tanks require to be properly cleaned to avoid corrosion?
- Do non-operating sea water system(s) such as heat exchanger connections need to be blanked off if the sea opening is left open?
- Does the water of the cooling water system(s) require to be isolated and drained or will suitable additive be added to inhibit corrosion/ freezing/ extreme fouling?
- Are the exposed parts of deck machineries/ equipment sufficiently greased and internal machinery oiled and sealed to prevent ingress of moisture and air as far as practicable?
- Are all pump rooms, services spaces, storage spaces and other similar areas kept in dry condition and is dehumidification applied where required?
- Are the oil/ bunker tanks kept full where practicable and is there a regular monitoring/check in place for liquid loss or are the tanks empty, clean and gas free?
- Are all flame screens on oil tank air pipes maintained in satisfactory condition?
- Is additive required to be added to the fuel/ lubricant to prevent microbiological degradation?

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

- Is dehumidification required to inhibit atmospheric corrosion of the machineries and electrical/ electronic (control) equipment?
- Are all liquid seals treated with anti-freeze additive to prevent freezing under normal climatic conditions where applicable?
- Are gasket and seals in the machinery spaces which may subsequently degrade due to physical and/ or atmospheric induced factors over an extended period identified and replaced where necessary?
- What are the essential and emergency machineries/ equipment/ systems such as firefighting/ fire detection/ fire isolation, alarms/ warning, signalling, lifesaving appliances, steering, etc... that require periodical testing/ inspecting to affirm the operational readiness during the lay up for the safe operation of the vessel in her current condition?
- Which non-operating/ active machineries/ equipment/ systems are being deactivated and what are the requiring interval maintenance and preservation measures to be in place to prevent deterioration/ degradation, localised/ static stresses, corrosion, seizure, component distortion, etc...?
- Where applicable, is the fireside of boilers and/ or exhaust gas economiser cleaned with a water alkaline solution to neutralizes the acidic deposits and thereafter insulated and dried?
- Where applicable, should the boilers be drained to inhibit corrosion and opened to ensure maximum air circulation?

Required documentation and records during the lay-up period to ensure smooth operation/ maintenance process during lay-up/ re-activation period as well as ensuring that the emergency equipment/ systems will be kept in operational readiness condition.

- Has the Flag Administration and EFM be notified of the lay-up intent and the lay-up location selected?
- Is the mandatory minimum manning for the lay-up period adequate to handle/ respond to anticipated onboard emergency situations such as fire, flooding, severe weather, break of mooring, security breach, etc?
- Has the Classification society been notified of the lay-up intent and has the vessel been surveyed and reassigned as laid up?
- Have all the lay-up requirements of the Flag Administration, Classification, local authorities, and your insurers been satisfied?
- The measures being taken during the lay-up are required to be logged and maintained for the purpose of ensuring easy and orderly reactivation when the vessel is to be put back into service.

SINGAPORE
EF Marine Pte. Ltd.
7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987
+65 62 59 75 02
info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.
Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands
+31 10 79 86 990
info@efmarinegroup.com

- Have the shipboard personnel/ watchmen been provided with appropriate lay-up procedures/ instructions to guide and train them for the safe operation and maintenance of the vessel including operating of essential machinery and equipment that are critical to the lay-up operation such as electrical generator unit(s), fire- fighting equipment, mooring winches, etc....., and the protection of local environment?
- What are the essential safety and operation logs and records required to be maintained to enable quick reactivation audit of the existing shipboard safety management systems where applicable?
- What are the required mandatory surveys to be performed while/ during the vessel lay-up period to ensure that the vessel is held in compliance with the lay-up requirements of the Classification and Flag Administration?
- What essential maintenance/preservation actions need to be in place during lay-up and what records are to be maintained to ensure a smooth transfer of activities at crew changes? This to ensure required maintenance is carried out at adequate intervals and is not overlooked and to allow an easy and efficient reactivation when the vessel is to be put back into service.

Reactivation/ Recommissioning Planning

The extent of the scope of reactivation/ recommissioning processes will depend on the extent of maintenance/ preservative measures taken during the lay-up.

- Is there an appropriate reactivation/ recommissioning procedure/ instruction to guide the reactivation personnel in the proper reactivation requirements such as the servicing/ overhauling/ testing for the essential machineries/ equipment/ systems/ installations and/ or the inspection/ treatment/ testing of the hull/ structure that are critical to safe operations and the protection of local environment?
- What are the mandatory and statutory requirements required to be fulfilled for the vessel to be operationally ready for her trading and navigating built/ design intent?
- Is dry docking required in respect of the condition of the hull at the time of reactivation?
- Are the lubricants and fuels still in satisfactory condition at time of reactivation?
- What are the essential machineries/ equipment and/ or systems/ installations' technical components requiring to be overhauled/ serviced to ensure they are efficient and in satisfactory operating order/ performance?
- Is a sea trial required to affirm the proper performance and operation of the essential machineries/ equipment and systems/ installations?

SINGAPORE
EF Marine Pte. Ltd.

7 Temasek Boulevard #20-01
Suntec Tower One
Singapore 038987

+65 62 59 75 02

info@efmarinegroup.com

ROTTERDAM
EF Marine B.V.

Willemswerf Building
Boompjes 40
3011 XB Rotterdam
The Netherlands

+31 10 79 86 990

info@efmarinegroup.com

We further recommend that the lay-up planning and reactivation planning is performed in consultation with the Classification Society of the vessel, machinery/ equipment/ system manufacturer(s)/ specialists and their technical support personnel. Consideration should also be given to engage with a reputable specialised consultant to assist in the lay-up and reactivation requirements of the vessel.

EFM requirements for laying-up of vessel

When you decide to lay-up your vessel, prior agreement from EF Marine should be sought to secure the continuation of your P&I cover. Please consider the following when doing so:

- The lay-up should be pre-notified and approved by EF Marine.
- The lay-up location is to be approved by EF Marine.
- There is no cargo on board.
- There are no passengers on board.
- The Insured Vessel remains in class.
- The Insured Vessel remains insured for H&M, unless otherwise agreed.
- The Insured Vessel remains under 24/7 supervision by the Crew on board of the Insured Vessel, unless otherwise agreed.
- No repairs or hot work are taking place on board of the Insured Vessel, other than the normal routine maintenance works, unless otherwise agreed.
- The vessel is to be held in compliance with the lay-up/ reactivation requirements of the Classification, Flag Administration, and the local authorities where applicable.
- The lay-up location is to be declared to and approved by the local authorities and Flag Administration of the vessel.
- Frequent weather forecast/ warning information is to be available for the lay-up location
- The mooring and anchoring arrangement is approved by the Classification Society of the vessel.

QUESTIONS?

Should you have any questions following this information, please do not hesitate to contact us.

ABOUT EF MARINE

EF Marine provides Fixed Premium P&I solutions to Shipowners, Charterers and MultiModal operators.
EF Marine has a global client base and offices in Singapore and Rotterdam. EF Marine provides 'AA- 'rated security from Swiss Re Corporate Solutions with limits up to USD 500m. Through our partnership with Swiss Re Corporate Solutions we provide our clients with first class security combined with EF Marine's extensive knowledge of the P&I market.